

# JC10 Rec'd PCT/PT 3 JUL 2005

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

10/529531

Confirmation No. N/A

Applicant

Pierre Fayet et al.

Filed

March 29, 2005

TC/A.U.

N/A

Examiner

N/A

Title

DEVICE FOR CARRYING OUT A PLASMA-ASSISTED

**PROCESS** 

Docket No.

FRR-16007

Customer No.

040854

#### **LETTER**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir/Madam:

Enclosed herewith is an English translation of the International Preliminary Examination Report for filing in the above-identified application.

Respectfully submitted,

RANKIN, HILL, PORTER & CLARK LLP

David Spaw, Reg. No. 34732

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313440, when date indicated below.

Signature of Person Mailing Paper

7/15/05 Date David E. Spaw

Printed Name of Person Mailing Paper



Translation

### PATENT COOPERATION TREATY



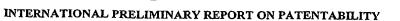
## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P2074 PCT	FOR FURTHER A	CTION	See Form PCT/IPEA/416				
International application No.	International filing da	te (day/month/year)	Priority date (day/month/year)				
		03 (09.09.2003)	03 October 2002 (03.10.2002)				
International Patent Classification (IPC) or national classification and IPC C23C 16/509							
Applicant TETRA LAVAL HOLDINGS & FINANCE S.A.							
This report is the international preliminary examination report, established by this International Preliminary Examining     Authority under Article 35 and transmitted to the applicant according to Article 36.							
2. This REPORT consists of a total of			sheet.				
3. This report is also accompanied by A							
a. (sent to the applicant and	to the International Bu	reau) a total of	sheets, as follows:				
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).							
sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.							
l ===		total of (indicate ty	The and number of electronic carrier(s))				
b (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).							
4. This report contains indications rela	ting to the following ite	ms:					
Box No. I Basis of the re	eport						
Box No. II Priority							
Box No. III Non-establish	ment of opinion with re	gard to novelty, inven	tive step and industrial applicability				
Box No. IV Lack of unity	of invention						
Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;							
citations and explanations supporting such statement  Box No. VI Certain documents cited							
一							
	First and the second se						
Column 00301 various on the international application							
Date of submission of the demand		Date of completion of this report					
29 March 2004 (29.03.2004)		22 April 2005 (22.04.2005)					
Name and mailing address of the IPEA/EP		Authorized officer					
Facsimile No.		Talanhana No					



International application No.
PCT/CH2003/000610

Box No	. I	Basis of the report					
1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.							
	This report is based on translations from the original language into the following language, which is language of a translation furnished for the purpose of:						
ľ	international search (under Rules 12.3 and 23.1(b))						
		publication of the international application (under Rule 12.4)					
1.		international preliminary examination (under Rules 55.2 and/or 55.3)					
i		. •	•				
Jurni	snea w are not	d to the elements of the international application, this report is based to the receiving Office in response to an invitation under Article 14 are referenced to this report):	on (replacement sheets which have been rred to in this report as "originally filed"				
		nternational application as originally filed/furnished					
		escription:					
	page		, as originally filed/furnished				
	pages						
<b>6</b> 3							
		laims:					
i	pages		, as originally filed/furnished				
	pages	, as amonded (	together with any statement) under Article 19				
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1	pages		, as originally filed/furnished				
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L.	a seq	uence listing and/or any related table(s) - see Supplemental Box Relating to	Sequence Listing.				
3.	The a	mendments have resulted in the cancellation of:	•				
		the description, pages					
		the claims, Nos.					
		the drawings, sheets/figs					
Ì		the sequence listing (specify):					
	$\sqcap$	any table(s) related to sequence listing (specify):					
			•				
4.	made	report has been established as if (some of) the amendments annexed to thi, since they have been considered to go beyond the disclosure as filed, 70.2(c)).  the description, pages	s report and listed below had not been as indicated in the Supplemental Box				
i	$\overline{\Box}$	the claims, Nos.					
	百	the drawings, sheets/figs					
	Ħ	the sequence listing (specify):					
	H	any table(s) related to sequence listing (specify):					
		specify):					
* If iten	ı 4 apş	plies, some or all of those sheets may be marked "superseded."					

### INTERNATIONAL PREDIMINARY EXAMINATION REPORT

1	Interi	application No.
	PCT/CH	03/00610
		,

YES

NO

1-12

V. 	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement				
	Novelty (N)	Claims	1-12	YES	
		Claims		NO	
	Inventive step (IS)	Claims	1-12	YES .	
		Claims		NO	

Citations and explanations

Industrial applicability (IA)

Reference is made to the following document:

Claims

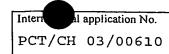
Claims

D1: FUJIMAKI S ET AL: "New DLC coating method using magnetron plasma in an unbalanced magnetic field" FIFTH INTERNATIONAL SYMPOSIUM ON SPUTTERING AND PLASMA PROCESSES (ISSP'99), KANAZAWA, JAPAN, 16-18 JUNE 1999, Vol. 59, Nos. 2-3, pages 657-664, Vacuum, Nov-Dec 2000, Elsevier UK ISSN: 0042-207X

D1 is considered the prior art closest to the subject matter of claim 1. D1 discloses (the references in parentheses relate to said document): a device (figure 1; page 658, Chapter 2) for carrying out plasma-supported chemical deposition from the gas phase using an unbalanced direct current magnetron electrode. The workpiece positioning means sets the distance between the workpiece and the magnetron electrode at approximately 4 cm (figure 2).

The subject matter of claim 1 differs therefore from the known device in that the magnetron electrode is supplied with high-frequency alternating current and in addition in that, between the surface that is to be treated and darker tunnels which extend through magnetic lines of force between peripheral and central poles of the magnetron

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT



front, there extends a visible plasma strip which has a minimum width but homogenous brightness relative to the surface that is to be treated.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)), although the last feature is unclear (PCT Article 6) since it is a method feature.

The problem addressed by the present invention can therefore be considered the provision of a device which improves the efficiency of plasma-supported processes and increases layer quality in deposition processes. Since the solution to this problem proposed by claim 1 of the present application is not suggested by the prior art, it involves an inventive step (PCT Article 33(3)).

Claims 2-12 are dependent on claim 1 and therefore likewise meet the PCT novelty and inventive step requirements.



From the INTERNATI L BUREAU

NOTIFICATION OF TRANSMITTAL OF COPIES OF TRANSLATION OF THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OR CHAPTER II OF THE PATENT COOPERATION TREATY) (PCT Rule 72.2)

To:

EINGAMA

FREI PATENTANWALTSBÜRO AG Postfach 1771 CH-8032 Zürich SUISSE

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Date of mailing (day/month/year) 30 June 2005 (30.06.2005)

Applicant's or agent's file reference

P2074 PCT

IMPORTANT NOTIFICATION

International application No. PCT/CH2003/000610 International filing date (day/month/year) 09 September 2003 (09.09.2003)

Applicant

TETRA LAVAL HOLDINGS & FINANCE S.A. et al.

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EP, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

Yolaine Cussac

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